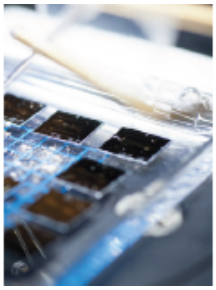
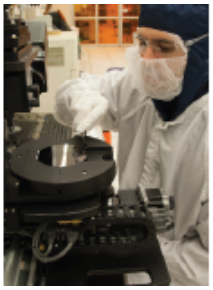
MEP National Network™

ARIZONA


ARIZONA MANUFACTURING EXTENSION PARTNERSHIP (ARIZONA MEP)

Arizona Manufacturing Extension Partnership (Arizona's MEP) was created through a partnership between the Arizona Commerce Authority (ACA) and the National Institute of Standards and Technology (NIST) whose goal is to become the central resource for technical assistance and all things manufacturing for Arizona's existing community of small and medium-sized manufacturers.

Arizona MEP offers products and services that match the needs of manufacturing companies in Arizona and provides focused, concrete advice, training and hands-on assistance in growing businesses and improving profitability.

ECONOMIC IMPACT

MEP Center impacts are based on clients surveyed in FY2020

$32.5 Million
Total Increased/Retained Sales

672
Total Increased/Retained Jobs

$47.7 Million
New Client Investments

$12.3 Million
Cost Savings

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ARIZONA MANUFACTURING EXTENSION PARTNERSHIP

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ARIZONA SUCCESS STORY

PILGRIM FULFILLS FIRST PHASE OF ROBOTICS AND AUTOMATION STRATEGY

ABOUT PILGRIM AEROSPACE CORPORATION. Pilgrim Aerospace Corporation consolidated its Rhode Island operations to Chandler, Arizona, in 2018. Arizona's business-friendly environment and relocation services provided by the Arizona Commerce Authority were key incentives for Pilgrim to choose the state for its operations. Pilgrim, with its 40-person staff, specializes in military and aerospace threaded fasteners.

THE CHALLENGE. A few years ago, Arizona Manufacturing Extension Partnership (AZ MEP), part of the MEP National Network™, worked with Pilgrim on a successful value-stream mapping project. The relationship continued with Tanya Perkins, an AZ MEP senior client advisor, meeting with the leadership team regularly to discuss the goals and strategies for the company and its current situation. One of Pilgrim's goals was to implement more automation and robotics at the facility to improve efficiency. Based on a past project with another client who had similar goals, Perkins was able to connect Pilgrim with IP Tech, a licensed dealer for Universal Robots used in manufacturing.

MEP CENTER'S ROLE. Pilgrim Aerospace Fasteners implemented the first phase of its automation plan with the help of AZ MEP, In-Position Technologies (IP Tech), and the Arizona State University Polytechnic campus. During this initial phase of the company's plan, Pilgrim planned on installing two Universal Robots (UR5E): one in a CNC cell and the other in the hot forging department. IP Tech recommended that Pilgrim work with students at ASU Polytechnic to help with the engineering and system programming needed for implementation. Students worked on two capstone projects to design and build the mobile stands used to support the robotic arms and programmed the robotic arms to talk with the CNC machines and to each other. As a result of the project, Pilgrim hired three of the students as employees after they graduated.

The local IP Tech representative met with Pilgrim to learn about the company's operations and automation goals. At the meeting, they discussed the equipment and processes used, the type of parts supplied, and the typical order size. "The rep from IP Tech set up a robotic arm demo in less than half an hour and programmed a pick and place in less than two minutes," said Jason Grove, Pilgrim's chief operating officer. "Through the demo, we saw how the robotic arm could work alongside an operator to perform repetitive tasks while the operator focused on checking quality, doing the necessary paperwork, and setting up another machine."

The success of this project has given Pilgrim a blueprint for adding an average of two robotic arms per year in addition to adding more CNC machines and expanding its Chandler facility. With the connections made through AZ MEP, IP Tech and ASU, Pilgrim aligned the resources necessary to implement the company's multi-year automation plan.

RESULTS

- **$90,000** invested in robotic arms to increase productivity
- **$50,000** savings per year per arm

ARIZONA MANUFACTURING EXTENSION PARTNERSHIP

"The robotic arms were implemented to make us more efficient, reduce lead times, and support our growing business. "

-Jason Grove, Chief Operating Officer